



RFQ readiness guide for machined components

A practical checklist for OEMs, machinery builders, maintenance teams and procurement teams preparing a machining enquiry for repeat parts, critical spares, second-source work or a controlled first batch.

Start with the right information

Good RFQ packs reduce avoidable quoting delay. They ensure risk is reduced by asking questions and seeking clarity in a timely manner, before the part becomes urgent: do you have old drawings, missing material data, unknown inspection points, unclear finish requirements, or unrealistic timing?

[Start a component supply review](#)

What this guide is for

Use this guide before sending an RFQ for a machined component or part family.

It is not a substitute for engineering review. It is a way to send better information at the start, so the part can be assessed without unnecessary back-and-forth.

Use it when the part is:

- a repeat machined component or part family
- a critical spare for operating machinery
- a second-source candidate
- a first batch before planned repeat supply
- a part with controlled drawings, inspection points or finishing requirements
- a legacy part where supply history is incomplete

Do not use it for

- isolated hobby, repair or one-off work with no future requirement
- commodity bought-in items with no machining requirement
- design-only requests where no controlled manufacturing scope exists
- urgent work with no drawing, sample, material record or contactable technical owner

The RFQ pack ALE can assess properly

A useful RFQ pack gives enough information to understand the component, the risk and the production path. Send what you have. Mark anything that is unknown.

RFQ item	What to include	If unknown
Part identity	Part name, drawing number, revision, customer part number, assembly or machine reference.	State the machine, assembly or function the part belongs to.
Drawing or model	PDF drawing, STEP model, CAD file if available, marked-up old drawing if needed.	Send a clear photo of the part and identify all known features.
Material	Grade, standard, supplied material, certificate need, heat treatment state.	State current material if known, or current use environment.
Finish	Anodising, hard anodising, plating, coating, hardening, black oxide, e-coat, passivation, painting or other external operation.	State the existing finish and attach photos.
Quantity	Required batch size, forecast annual use, likely repeat cycle, price-break quantities.	Give a realistic range and expected timing.
Inspection	Critical dimensions, fits, threads, bores, datums, surface finish, inspection report needs.	Mark the features that affect assembly, seal, bearing, movement or safety.
Timing	Required date, shutdown date, current stock, last safe order date.	State what happens if the part is late.

Supply risk	Current supplier position, late supply, quality issues, single-source exposure, obsolete part history.	State the reason the part is being reviewed now.
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Drawing and revision control

The drawing controls the job. Old, incomplete or uncontrolled drawings create quoting risk and production risk. Flag the drawing condition at the start.

Check	Ready	Needs review	Notes
Drawing number shown			
Revision shown			
Material shown			
Finish shown			
Units clear			
Tolerances clear			
Datums clear if required			
Critical features marked			
Thread details clear			
Surface finish called out where needed			
Current drawing matches the part in service			

Drawing unsure?

If the drawing is old, incomplete or out of revision control, use the drawing health checklist before sending the RFQ.

[Open the drawing health checklist](#)

Material and finishing details

Material and finish often decide whether a part is straightforward or risky. The RFQ should separate what is specified, what is assumed, and what is only copied from the old part.

Field	Information to supply
Material grade	Example: 316 stainless, 4140, 1045, 6061 aluminium, bronze, cast iron, engineering plastic.
Condition	Annealed, hardened, nitrided, heat treated, stress relieved, certified, customer-supplied or supplier-supplied.
Finish or coating	Clear anodise, hard anodise, zinc plate, hard chrome, e-coat, powder coat, black oxide, passivation or other process.
Wear or corrosion exposure	Abrasive service, washdown, food environment, chemical exposure, outdoor service, bearing fit, seal face or sliding surface.
Certificates	Material certificate, coating certificate, heat treatment certificate, conformity certificate or none.

Quantities, repeat demand and timing

State immediate need, forecast use and likely repeat demand. That allows the part to be assessed as a one-off, first batch or planned repeat component.

Quantity field	Example entry
Immediate requirement	5 pieces required for current build or maintenance window.
Annual usage	Approx. 40 pieces per year.
Likely batch pattern	10 pieces quarterly, or 20 pieces twice per year.
Shutdown date	Plant shutdown starts 15 September. Parts required on site by 5 September.
Current stock	2 pieces in stores, one fitted to machine, no second-source stock.
Demand status	Known repeat part, second-source review, urgent spare, first batch, obsolete component.

Inspection and approval requirements

Inspection requirements should be clear before quoting. If all dimensions are treated as equally critical, quoting and inspection time increase. If the true critical features are marked, the production path is cleaner.

Feature type	Typical information needed
Bearing and bush fits	Bore size, tolerance, surface finish, concentricity, roundness and inspection evidence required.

Shaft and seal areas	Diameter tolerance, runout, seal land finish, hardening or coating requirements.
Threads	Thread form, class, gauge requirement, depth and end condition.
Flanges and housings	Bolt patterns, datums, flatness, face runout, sealing faces, pressure-service restrictions if relevant.
First batch approval	First article report, sample approval, customer inspection, photos, certificate pack or standard inspection report.

First batch work

If the part has not been made by ALE before, use a controlled first batch before treating the component as repeat supply.

[Read the controlled first batch guide](#)

Supplier and supply risk information

For second-source or repeat supply work, send the commercial context as well as the drawing. The part may be technically simple but commercially risky if the drawing is old, the supplier is overloaded or the part is only ordered after failure.

Supply question	Answer
Is there a current supplier?	
Is the current supplier late, unavailable or quality-constrained?	
Is ALE being assessed as a second source?	
Does the part stop a machine, line or build if unavailable?	
Is the drawing current and controlled?	
Is there a known repeat requirement over the next 6 to 24 months?	
Are there existing inspection reports or batch records?	
Is there a sample available?	

Single-supplier exposure

If the part depends on one supplier, qualify the second source before the next failure or shutdown. Start with the checklist.

[Open the second-source supplier checklist](#)

What slows down an RFQ

- No drawing, no sample and no clear machine reference.
- Drawing revision does not match the part in service.
- Material is described only as "steel" or "stainless" with no grade.
- Finish or coating is visible on the old part but not specified.
- Critical dimensions are not marked. Datum structure is unclear. Tolerances are unclear or overly complex.
- Quantity is listed as one piece when the real issue is repeat demand – ask for quantity prices
- Delivery date is stated without shutdown date, current stock or risk context.
- The part is safety, pressure or regulated service but design responsibility is unclear.

How ALE reviews a machining RFQ

1. Check the part type, drawing condition, material and finish requirements.
2. Assess machining process fit across turning, milling, turn-mill, heavy turning, inspection and external operations.
3. Review quantity, timing, repeat demand and supply risk.
4. Identify obvious drawing, inspection, material or process gaps.
5. For suitable work, select a path: drawing review, component supply review, controlled first batch or planned repeat supply.

RFQ cover sheet

Use this page as the front sheet for a machining enquiry.

Field	Entry
Company	
Contact name	
Phone and email	
Part name	
Customer part number	
Drawing number and revision	
Material	
Finish or external operations	
Quantity required now	

Annual or expected repeat demand	
Required date	
Machine, line, assembly or equipment	
Consequence if late or unavailable	
Inspection or certificate requirements	
Current supplier situation	
Files attached	Drawing / STEP / sample photo / inspection report / old PO / other

Next steps

Send the strongest available RFQ pack. If the part is repeat, critical, delayed, under supplier pressure or likely to require first batch control, start with the component supply review rather than a loose quote request.

Send the RFQ via the best pathway

Choose the path that matches the part condition.

[Start a component supply review](#)